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⑤④ **Magnetic recording medium and manufacturing method thereof.**

⑤⑦ A magnetic recording medium, comprising a substrate (11), a Cr base layer (21) containing nitrogen in an amount less than 25 atm %, preferably 5 to 15 atm %, and a magnetic film (13) of Co alloy such as Co-Ni or Co-Ni-Cr alloy material deposited thereon, shows a clear improvement in medium noise level and S/N ratio over a conventional medium comprising a pure Cr base layer without nitrogen content. In case of about 10 atm % nitrogen content in the base layer, the medium noise level is reduced by half and the S/N ratio is improved by 6 to 9 dB, while the other magnetic characteristics such as coercivity H_c, residual magnetization B_r, and squareness ratio S_q are remaining the same.

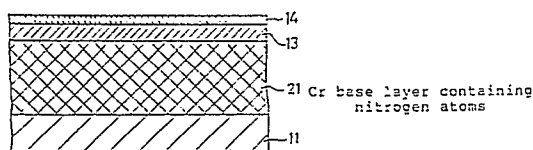


FIG. 2



EP 88 40 1694

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
A,P	PATENT ABSTRACTS OF JAPAN vol. 11, no. 72 (P-554)(2519), 5th March 1987; & JP - A - 61 233 428 (VICTOR) 17-10-1986 (Cat. A) ---	1,2,9	G 11 B 5/70 G 11 B 5/66
A	WO-A-8 605 214 (TRIMEDIA CORPORATION) * page 4, line 34 - page 5, line 7 * ---	1,2,9	
P,A	DE-A-3 707 522 (MATSUSHITA) * whole document * ---	1,9	
A	EP-A-0 216 610 (IBM) * claims 1,2 * ---	1,2	
A	PATENT ABSTRACTS OF JAPAN vol. 9, no. 236 (P-390)(1959), 21st September 1985; & JP - A - 60 090 336 (TOPPAN INSATSU) 21-05-1985 -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			G 11 B 5/00 H 01 F 10/00 G 03 F 1/00
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 29-06-1989	Examiner CHAUMERON B.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			